PTO/SB/05 (06-03)
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UTILITY
PATENT APPLICATION
TRANSMITTAL

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UTILITY PATENT APPLICATION TRANSMITTAL	Attorney Docket No.	ARC920030058US1
	First Inventor	Stuart S.P. PARKIN
	Title	Magnetic Magneto-Resistanc
(Only for new nonprovisional applications under 37 CFR 1.53(b))	Express Mail Label No.	EU 949858791 US

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Commission P.O. Box 14	vatent Application oner for Patents 450 VA 22313-1450
1. Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing) Applicant claims small entity status. See 37 CFR 1.27. 3. Specification [Total Pages 34] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. Drawing(s) (35 U.S.C. 113) [Total Sheets 10] 5. Oath or Declaration [Total Sheets 2] a. Wewly executed (original or copy)	ii. Paper	idix) Sequence Submission Im (CRF) Ince Listing on: Ince
b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. Application Data Sheet. See 37 CFR 1.76	13. Preliminary Amendment 14. Return Receipt Postcard (Should be specifically ite 15. Certified Copy of Priority (if foreign priority is claims 16. Nonpublication Request (b)(2)(B)(i). Applicant must or its equivalent.	(MPEP 503) emized) Document(s) eed) under 35 U.S.C. 122 st attach form PTO/SB/35
18. If a CONTINUING APPLICATION, check appropriate box, and sup		card (2)
	tion-in-part (CIP) of prior application Art Unit: a prior application, from which an oath or or divisional application and is hereby in	ncorporated by reference.
19. CORRESPON	DENCE ADDRESS	
Customer Number: 35987	OR Corres	pondence address below
Name		
Address		
City	State	Zip Code
Country	elephone	Fax
Name (Print/Type) Joseph P. Curtin	Registration No. (Attorney/Agent)	34,571
Signature		Date 11/24/2003

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mall Stop Patent Application, Commissioner for Patents, P. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (10-03) Approved for use through 07/31/2006. OMB 0651-0032

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for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

J. .

12)	1436
121	1430

C mpl te if Known		
Application Number	TBA	
Filing Date	November 24, 2003	
First Named Inventor	Stuart S.P. PARKIN	
Examiner Name	TBA	
Art Unit	TBA	
Attorney Docket No.	ARC920030058US1	

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)	
Check Credit card Money Other None 3. ADDITIO	NAL FEES	
Large Entity S	Small Entity	
Deposit Code (\$) C	ee Fee Fee Description code (\$) Fee Paic	
Account 109-0441	2051 65 Surcharge - late filing fee or oath	
Deposit Account IBM Almaden 1052 50 2	2052 25 Surcharge - late provisional filing fee or cover sheet	
Name 1053 130 1	1053 130 Non-English specification	
Charge fee(s) indicated below Credit any overpayments	1812 2,520 For filing a request for ex parte reexamination	
Charge any additional fee(s) or any underpayment of fee(s)	1804 920° Requesting publication of SIR prior to Examiner action	
Charge fee(s) indicated below, except for the filing fee 1805 1,840° 1 to the above-identified deposit account.	1805 1,840* Requesting publication of SIR after Examiner action	
FEE CALCULATION 1251 110 2	2251 55 Extension for reply within first month	
	2252 210 Extension for reply within second month	
	2253 475 Extension for reply within third month	
Fee Fee Fee Fee Description Fee Paid 1254 1,480 2	2254 740 Extension for reply within fourth month	
1001 770 2001 205 Hillie Gior foo 1255 2.010 2	2255 1,005 Extension for reply within fifth month	
	2401 165 Notice of Appeal	
	2402 165 Filing a brief in support of an appeal	
· · · · · · · · · · · · · · · · · · ·	2403 145 Request for oral hearing	
· · · · · · · · · · · · · · · · · · ·	1451 1,510 Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 770	2452 55 Petition to revive - unavoidable	
1453 1 330 2	2453 665 Petition to revive - unintentional	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE 1501 1,330	2501 665 Utility issue fee (or reissue)	
Extra Claims below Fee Paid 1502 480	2502 240 Design issue fee	
	2503 320 Plant issue fee	
Claims 4 - 3 - = 1	1460 130 Petitions to the Commissioner	
Multiple Dependent = 1807 50	1807 50 Processing fee under 37 CFR 1.17(q)	
Large Entity Small Entity 1806 180 Fee Fee Fee Fee Description	1806 180 Submission of Information Disclosure Stmt	
Code (\$) Code (\$) 1202 18 2202 9 Claims in excess of 20	8021 40 Recording each patent assignment per property (times number of properties)	
1202 18 2202 9 Statistist occurs of 2 1809 770 1201 86 2201 43 Independent claims in excess of 3	2809 385 Filing a submission after final rejection (37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid 1810 770	2810 385 For each additional invention to be examined (37 CFR 1.129(b))	
1204 86 2204 43 ** Reissue independent claims over original patent 1801 770 2	2801 385 Request for Continued Examination (RCE)	
	1802 900 Request for expedited examination of a design application	
SURTOTAL (2) (\$) 626 Other fee (spec	sify)	
**or number previously paid, if greater; For Reissues, see above **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40		

SUBMITTED BY (Complete (if applicable)) Registration No. Name (Print/Type) Joseph P. Curtin 34,571 Telephone 503-296-8373 (Attorney/Agent) 11-24-2003 Signature Date

> WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail (Express Mail Label EU 949858791 US) in an envelope addressed to:

MAIL STOP PATENT APPLICATION

Commissioner For Patents
P.O. Box 1450

Alexandria, VA. 22313-1450

On November 24, 2003

Joseph P. Curtin, Reg. No. 34,571

This certificate identifies all of the documents being submitted via Express Mail:

Utility Patent Application Transmittal (1 page)

Fee Transmittal (1 page w/copy)

Application Data Sheet (4 pages)

Application entitled "Magnetic Tunnel Junctions With Improved Tunneling Magneto-

Resistance" (34 pages)

Formal Drawings (10 pages)

Executed Declaration (2 pages)

Assignment Recordation Request (1 page w/copy)

Assignment (2 pages)

Information Disclosure Statement (2 pages)

8 Publications

Form PTO-1449 (3 pages)

Certificate of Mailing (1 page)

Return Receipt Postcard (2)

Serial No. Postcard (2)